(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 19 February 2004 (19.02.2004)

(10) International Publication Number WO 2004/014827 A1

(51) International Patent Classification7:

C07C 37/60

(21) International Application Number:

PCT/EP2003/007056

(22) International Filing Date:

2 July 2003 (02.07.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

MI2002A001662

26 July 2002 (26.07.2002)

- (71) Applicant (for all designated States except US): BOR-REGAARD ITALIA S.P.A. [IT/IT]; Via Carducci, 15, I-20123 Milan (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): ANDREOTTI, Grazia [IT/IT]; Via Ambrosini 1, I-20052 Monza-Milano (IT). PANSERI, Pietro [IT/IT]; Via G. Da Campione, 20, I-24100 Bergamo (IT). MESSORI, Vittorio [IT/IT]; Via Archimede, 105, I-20129 Milan (IT). MARIANI, Oliviero [IT/IT]; Via A. Volta 6, I-24040 Madone-Bergamo (IT). BOGNINI, Giezi [IT/IT]; Via Carducci 4, I-24036 Ponte S. Pietro-Bergamo (IT).

- (74) Agents: DE GREGORI, Antonella et al.; Ing. Barzano' & Zanardo Milano SPA, Via Borgonuovo, 10, I-20121 Mi-
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HYDROXYLATION PROCESS FOR AROMATIC COMPOUNDS CONTAINING A DIOXA-HETEROCYCLIC SYS-

57) Abstract: Process for the hydroxylation of aromatic compounds containing a dioxa-heterocyclic system which comprises directly hydroxylating said compounds with hydrogen peroxide in; the presence of a zeolitic catalyst having the general formula: xTiO2'(1-x)SiO2 wherein x is i a number ranging from 0.0001 to 0.04.